A Ceramic Sequence From Roviana Lagoon (New Georgia, Solomon Island)

Peter J. Sheppard

Matthew Felgate

Kenneth Roga

John Keopo

Richard Walter
Archaeologists

Introduction

The New Georgia Archaeological Survey is a joint programme of the Centre For Archaeological Research at the University of Auckland, the National Museum of the Solomon Islands and the Ministry of Culture, Western Province Solomon Islands. In our recent fieldwork we have been joined by Richard Walter from the University of Otago. At present research is focused on the Roviana Lagoon, on the south side of New Georgia island.

The broad goals of the research programme are:

1. to provide a baseline culture history for New Georgia.

2. document the history of food production through palynology, examination of field systems and study of marine resources.

3. examine patterns of regional interaction using ceramic assemblages.

4. investigate relationships among changes in food production, patterns of regional interaction and the development of the Roviana Chiefdom.

5. Document traditional and other sites of cultural importance for the people of Roviana Lagoon.

Fieldwork commenced in January of 1996 with a 6 week survey of the western end of Roviana Lagoon, followed by 6 weeks in June and July focusing on the eastern end of the lagoon and with a brief reconnisance survey of an inland region on New Georgia behind the village of Kazu towards Mt Viniatori. This last area has been surveyed by Matt Felgate (University of Auckland) at the end of July.

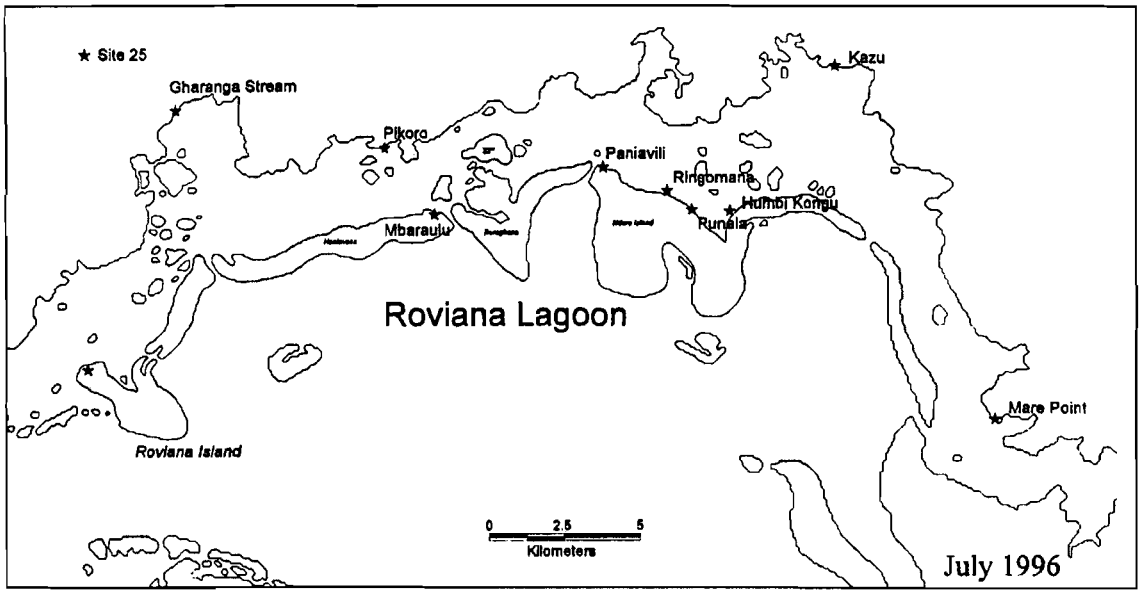

Figure 1
Inter-tidal ceramic sites in Roviana Lagoon.

Results

To date we have recorded and mapped 53 sites in the study area. These include a considerable number of stone (coral on the barrier islands and basalt on the mainland) shrines, house platform complexes, large fortified settlements and rockshelters, as well as a number of ceramic bearing locations. In this report I will focus on sites containing ceramics.

Ceramic Sites

Site Distribution

Roviana Lagoon is formed by a 30 km long string of barrier islands which parallel the south coast of New Georgia east of Munda (Fig. 1). These barrier islands and a portion of the mainland at the east end of the lagoon are formed from emerged coral reefs (Nunn 1994: Fig.6.16) and a series of wave notches are visible on cliffs on the seaward end of most passages. The coral appears to be heavily weathered and the uplift would appear to have a considerable antiquity. Cliffs in this raised coral contain numerous rockshelters and caves. The mainland of New Georgia which forms the north coast of the lagoon consists of a narrow coastal plain (< 1 km) which quickly becomes rugged hill country trending higher towards the large volcanic domes which dominate the central and western ends of the island. Small streams and rivers are common on the mainland coast and a number of these are navigable for several kilometers inland (e.g. Koreke River). Most of the lagoon is fringed with mangrove and beaches are not common. The most significant locations are the deep-water passages between islands where most modern villages are located. Settlement on the New Georgia coast is limited although it appears to be growing rapidly.

In 1989 Roland Reeve (1989) reported on a ceramic site which he and Matthew Spriggs had recognized on the barrier island of Ndora in the central Roviana Lagoon. The Panaivili site is a surface scatter of pottery lying within the inter-tidal zone of a small cove adjacent to a deep water passage which runs out between barrier islands to the open sea. Our research has located many more of these inter-tidal sites in Roviana as well as a number of on-shore ceramic occurrences.

Inter-tidal sites

To date we have located and sampled 9 ceramic bearing inter-tidal sites (Figure 1) including the original Panaivili site. Our experience suggests a considerable number of sites remain to be recorded on the mainland and barrier islands. Three sites (Gharanga Stream, Pikoro and Punala) are located near fresh water streams with others adjacent to passages. Freshwater is also available from caves in the village of Patmos back of the Panaivili site. Despite testing of a considerable number of caves and rockshelters throughout the islands and adjacent to inter-tidal sites no ceramic bearing deposit has been found in these locations.

Most of these inter-tidal sites are in the 30 by 10 m size range of the Panaivili site. Test pitting in the sites indicates no recognizable structure to the deposit. Examination of the coast adjacent to these sites has yet to reveal any surface evidence of cultural material

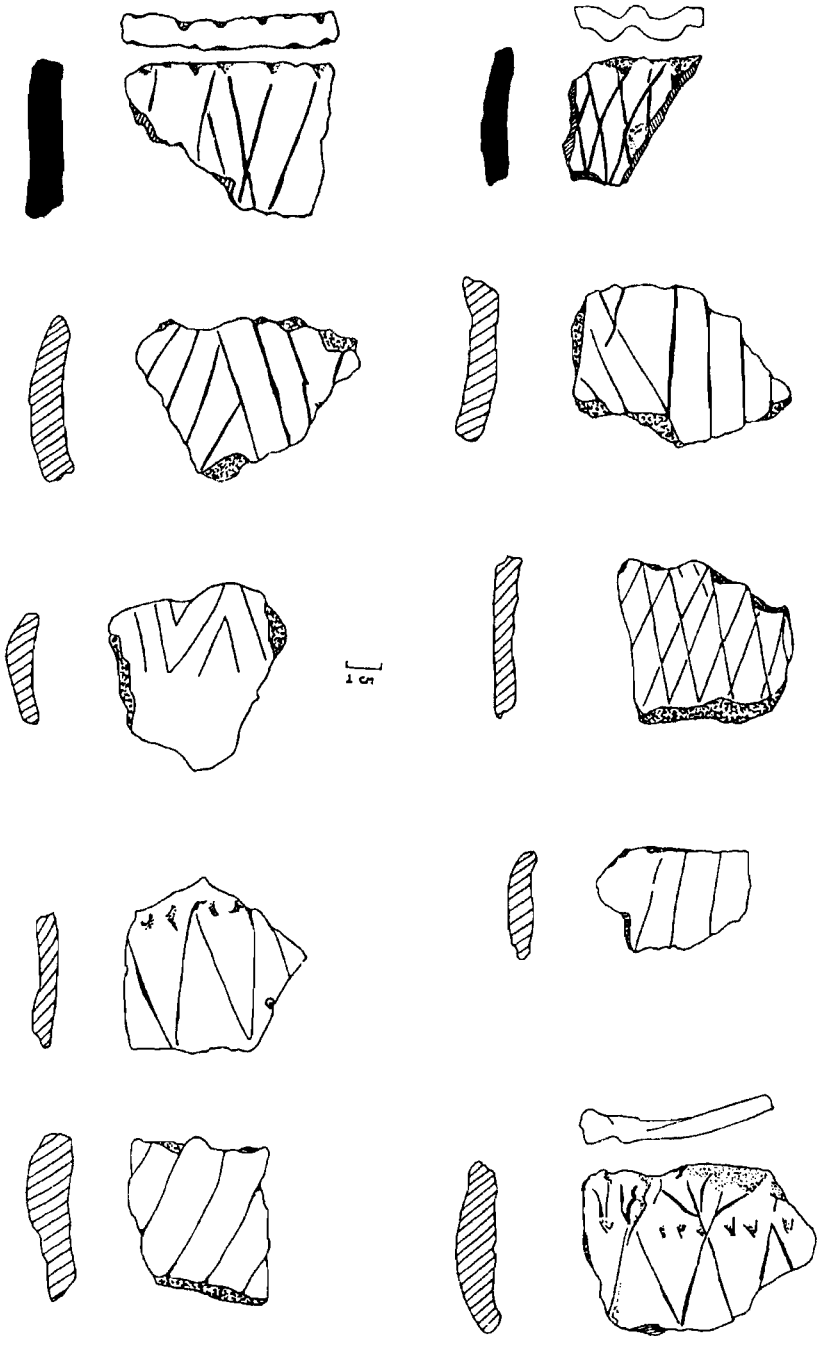

Figure 2
Incised ceramics from Roviana Lagoon.

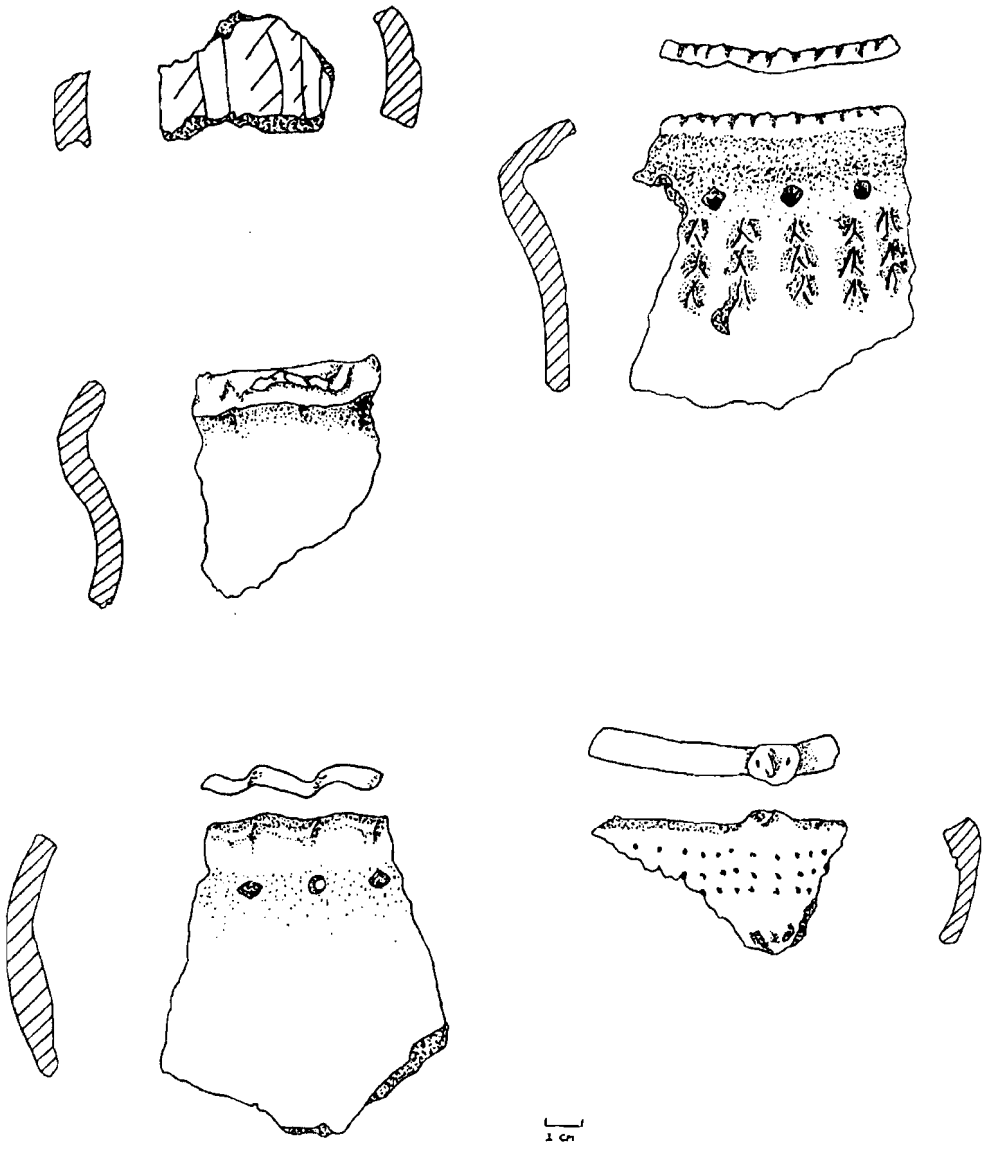

Figure 3
Punctate, applique and fingernail impressed ceramics from Roviana Lagoon.

except around the banks of streams at Pikoro and Punala. In these areas recent clearance of silt from the stream mouths has deposited ceramics along the last 15 m of the streams course. Two sherds of coarse undecorated ware were recovered while test pitting just back of the shore at Punala but no definite cultural layer was recognized. At Pikoro on the mainland a large fragment of decorated ceramic (possibly incised ware) was recovered by the land owner while excavating a drainage ditch in a sago swamp adjacent to the stream. Test pitting in this area resulted in the recovery of several small sherds, rock and nut fragments from below the water table which is 20 cm below the modern surface. This location is 40 m inland from the coast and circa 50 m from the hillslope.

Site Contents

We have recovered quantities of ceramics and fire-cracked rock from these sites plus a single adze from Ririgomana on Ndora island. Villagers near Panavili have recovered a series of stone and shell adzes, shell ornaments and an obsidian blade (Reeve 1989: 55) from that site. The Ririgomana adze is a small quadrangular form made of greenish volcanic rock (meta basalt?) similar to those reported by Reeve (1989: Figure 6 d-f) from Panavili.

Ceramic Description

Analysis of the ceramics has only just begun so the following comments are preliminary and based primarily on study of the Gharanga Stream and Panaivili samples (Table 1). The majority of sherds are plain, with an average thickness of circa 8.5-8.9 mm. Both a thin and thick ware are found in these assemblages. Preliminary examination of temper indicates over 85% of the sherds contain dark volcanic temper with only a small percentage of white (shell?) temper.

No dentate stamped material has been recovered from any of the sites. With the exception of the Gharanga Stream site the predominate decorative technique is rectilinear incision with cross-hatching or triangular motifs (Fig. 2). Applique, finger nail impression and punctation are present in small percentages at all sites but at Gharanga stream (Fig. 3) a small sample of 66 sherds is dominated by punctate patterns, finger nail impression and applique. Common applique motifs include snakes or lizards and faces which have been recovered from at least 3 sites.

Notched rims of various forms are common in the assemblages however the commonest and most distinctive form found in all sites is the deeply notched, wavy or crenulated form which is associated with both incised and punctate motifs.

Despite the small sample size the Gharanga stream collection suggests the possibility of some variation in the frequency of decorative techniques among sites.

Site	Panaivili	Gharanga Stream
Thickness(mm)	N=212	N=66
	Mean=8.9	Mean=8.5
	S=2.41	S=2.09
Estimated Rim Circumference	N=7	N=6
cm	Mean=12.1	Mean=17.5
	S=3.44	S=4.93
Rim Form	Direct=7	Direct=5
	Everted=5	Everted=5
Wavy Lip	13	3
Notched Lip	5	1
Linear Incision	13	1
Nail Impressed	3	5
Puncatation	0	3
Appliqué	0	1

Table 1
Ceramic Attributes (January 1996 Collection).

Plain Ware Sites

Careful searching will reveal small fragments of ceramic in the soil throughout Roviana. Decorated ceramics have not been recovered from the ground surface. Plain thin sherds can be found on the island of Nusa Roviana in the gardens along the path up to the hill fort above the modern village and within the village itself. One definite plain-ware site (Site 25) has been located in the hills on the New Georgia mainland circa 4 km inland. Here a logging road has cut into a dark cultural layer circa 50 m from a large stone shrine platform. A significant collection of in-situ sherds and canarium nut fragments was recovered while cleaning this section. This ceramic is a thin soft ware with decoration limited to shallow stick notching on thin straight rims. Comparable material has not been recovered from the inter-tidal decorated sites nor has it been directly associated with stone shrines.

Chronology

The modern Roviana people have a traditional history extending back 11 generations and no tradition of pottery manufacture. A single AMS date (R21360) on canarium char-

coal associated with plainware at Site 25 has produced a radiocarbon age of 468±62 BP which gives a calibrated 1 sigma age of 1403 to 1490 AD.

Direct dating of the decorated ceramics from the inter-tidal sites has not yet been possible. AMS dating of carbon extracted from the ceramic has been investigated but did not prove successful. Further experimentation with TL and ESR is planned and it is hoped to get at least a relative sequence using ESR measurements on fire-cracked rock from these sites. Testing in a series of rockshelters has yet to produce any ceramic deposits. A date under rock-fall at the bottom of an excavation at the shelter of Kinda Hite, located circa 250 m from the Panaivili site, gives a conventional radiocarbon age (WK-4586) of 2510±50 BP on shell (Mangrove Clam). This might suggest an antiquity greater than 2000 BP for the inter-tidal ceramic deposits. To date only limited testing has been conducted on the lower deposits at this site.

Comparisons: Detailed comparison of these ceramic assemblages with excavated materials from further a field has yet to be undertaken. However some preliminary comments can be made. Ceramics are now reported from all the major islands of the Western Solomons (Roga has recovered ceramic from Ganongga and Gizo and abundant ceramic is reported from Kolambangara, Pers. Comm Ridley Jack 1996). The closest well described sequence is that of Irwin (1972) from the Shortlands. Like Reeve (1989:61) I can find no direct similarity between the Roviana decorated assemblages and the Shortland sequence. Further to the northwest the Buka sequence would appear to have some similar rectilinear incised motifs in the earliest Buka Style (Specht 1969: Plate XI-2, b etc.) which dates between 900 and 25 BC (Specht 1969: 214). Specht notes some similarity between this material and sherds from Watom and it is here that the comparisons appear to be closest to the Roviana material. Specht (1969: Plate XI-47, a-l; Anson 1983:139) presents photographs of sherds with wavy or deep crenulated rims and rectilinear incised diagonal motifs from Watom Sites 6, 7 and 8. These appear to be identical to those from Roviana. Green and Anson's work (1991:180) at Watom also reports that "... several varieties of notched (crenellated) rim forms ... occur in association with plain Lapita at Watom, as well as on sherds carrying applied relief and linear incision". Green and Anson also report correspondences between the Watom incised material and a series of late or post-Lapita assemblages in the Bismarck Archipelago (Green and Anson 1991:179). White and Murray-Wallace (1996) have recently reviewed the incised and applique assemblages of the central east coast of New Ireland which appear to share attributes with the Roviana material "pinched rims and lip notching" and have concluded its age to be on the order of 2000 to 1500 BP (White and Murray-Wallace 1996:43) although problems in calibrating shell dates may make it at least several 100 years older. If we accept general correspondence of the Bismark Archipelago material with the Roviana assemblages it would suggest a date in the range of 2500-1500 BP for at least some of the Roviana inter-tidal material.

Conclusions

Analysis of this material has only just begun and further fieldwork is planned over the next 2 years. Conclusions seem somewhat premature however the following observations can be made.

1. The location of so many sites in the inter-tidal zone raises the issue of stilt villages (Specht 1991:199). We have collected data on sherd distribution and tested deposits to evaluate this proposition unfortunately the results of this work are not yet available. However, the observation of the current need for silt removal from stream mouths, the location of sherds in back-swamps under the water table and the observations of local informants suggests these sites may be formed by erosion of beach front villages; either through small degrees of subsidence or a rise in sea-level.

2. The Roviana survey, like all previous work by archaeologists -including the considerable fieldwork by the Solomons National Museum and Ministry of Culture, Western Province- has failed to recover any Classic Lapita dentate-stamped ceramics in the Western Solomons. I would add this data to that from the Central Solomons and extend Roe's (1993) hypothesis of no Lapita occupation in the Central Solomons to include the Western Solomons. If this hypothesis is correct it adds an interesting wrinkle to the Lapita expansion story and forces us to consider the effect of interaction of Lapita with established populations in the development of models of Lapita cultural dynamics and Pacific colonisation. It seems possible that the colonisation of the Reefs/Santa Cruz (Green 1979) may mark a very big first step, leap-frogging previously established populations and cultural networks.

Acknowledgements

We would like to thank the people of Roviana Lagoon for permission to carry out this work. In particular we would like to thank Chief John Roni (Sasavele), Arthur Banalinga (Pikoro), Chief Nathan Kera (New Vasilavata), Chief Joseph Kama (Nusa Mbanga), John Rasi (Ririgomana). A special thanks to Silas Oka and Ridley Jack for assistance on Ndora Island. This research was funded by grants from Auckland University to Sheppard and University of Otago to Walter.

Bibliographie

ANSON (D.), 1983 — *Lapita Pottery of the Bismarck Archipelago and its affinities.* Ph.D Thesis. University of Sydney.

GREEN (R.C.), 1979 — "Lapita". *In* Jennings (J.D.) ed.: *The prehistory of Polynesia,* Canberra, Australian National University: 27-60.

GREEN (R.C.), ANSON (D.), 1991 — "The Reber-Rakival Lapita site on Watom. Implications of the 1985 excavations at the SAC and SDI localities". *In* Allen (J.), Gosden (C.) eds: *Report of the Lapita Homeland Project.* Canberra, Australian National University Occasional Papers in Prehistory, N° 20: 170-181.

IRWIN (G.J.), 1972 — *An archaeological survey In the Shortland Islands, BSIP.* Unpublished MA Thesis, University of Auckland.

NUNN (P),. 1994 — *Oceanic Islands.* Oxford, Oxford Univ. Press.

REEVE (R.), 1989 — Recent Work on the Prehistory of the Western Solomons, Melanesia. *Indo Pacific Prehistory Association, Bulletin* 9: 44-67.

ROE (D.), 1994 — *Prehistory without Pots: Prehistoric Settlement and Economy on North-west Guadalcanal, Solomon Islands.* Unpublished Ph.D. Thesis. Australian National University.

SPECHT (J.), 1969 — *Prehistoric and Modern Pottery Industries of Buka Island, T.P.N.G.* Unpublished Ph.D. Dissertation. Australian National University.

SPECHT (J.), 1991 — "Kreslo: A Lapita Pottery Site in Southwest New Britian, Papua New Guinea". *In* Allen (J.), Gosden (C.) eds: *Report of the Lapita Homeland Project.* Canberra, Australian National University, Occasional Papers in Prehistory, N° 20: 189-204.

WHITE (J. P.), MURRAY-WALLACE (C.V.), 1996 — Site ENX (Fissoa) and the Incised and Applied Pottery Tradition in New Ireland, Papua New Guinea. *Man and Culture in Oceania* 12: 31-46.